

## CLAIMS

What is claimed is:

1. A method of optimizing radio-access-network-packet-data-service-  
2 node interface communications channel resources in a communications network  
when a mobile station moves from a first infrastructure element to a second  
4 infrastructure element associated with a packet data services node of the  
communications network, the method comprising the step of:  
6 transmitting from the second infrastructure element a message  
including a number of dormant network connections associated with the mobile  
8 station and a reduced list of identifiers associated with the dormant network  
connections.
2. The method of claim 1, wherein said reduced list does not include  
2 Service Request Identifiers.
3. A method of simplifying Packet Control Function network element  
2 functionality when a mobile station moves from a first infrastructure element of  
the packet data services network to a second infrastructure element of the packet  
4 data services network, the method comprising the step of:  
maintaining a reduced entry PPP connection table.
4. The method of claim 3, wherein said reduced entries do not include  
2 Service Request Identifiers.
5. A method of optimizing the Air Interface traffic channel resources in  
2 a communications network when the mobile station moves from a first  
infrastructure element of the packet data services network to a second  
4 infrastructure element of the packet data services network, the method comprising  
the step of:  
6 transmitting from the mobile station a message including a number  
of dormant network connections associated with the mobile station and enhanced  
8 information associated with the dormant network connections.

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7. The method of claim 5, wherein said enhanced information is used to conserve traffic channel resources by reducing Point to Point Protocol session negotiation.

8. The method of claim 5, wherein said enhanced information is used to  
2 conserve traffic channel resources by reducing Mobile Internet Protocol  
registration.

9. A mobile station configured to inform a packet data services network of dormant network connections associated with the mobile station when the mobile station moves from a first infrastructure element of the packet data services network to a second infrastructure element of the packet data services network, the mobile station comprising:

- an antenna;
- a processor coupled to the antenna; and
- a processor-readable medium accessible by the processor and containing a set of instructions executable by the processor to modulate and transmit from the mobile station a message including a number of dormant network connections associated with the mobile station and a reduced list of identifiers associated with the dormant network connections.

10. The mobile station of claim 9, wherein the dormant network  
2 connections comprise point-to-point protocol connections.

11. The mobile station of claim 9, wherein the first and second  
2 infrastructure elements comprise packet data service nodes.

12. The mobile station of claim 9, wherein the identifiers are not  
2 comprised of service reference identifiers.

13. The mobile station of claim 9, wherein the message comprises an origination message including an indicator that the dormant network connections are dormant.

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28. The packet data services node of claim 27, wherein the dormant  
2 network connection information associated with the mobile station maintained  
does not include service reference identifiers.

